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NERVOUS AND MENTAL DISEASES OF CHILDREN.*

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Infancy, or the nursing age, is the period of life during which the child is at the breast. It extends from birth to the twelfth month or a little longer. Childhood is the succeeding period extending to puberty. At birth the average brain weighs 10 3-4 ounces; at the end of infancy 31 1-2 ounces; at puberty 43 1-4 ounces. Thus we see that in the short space of less than two years the brain increases in size three times, while during childhood it gains less than one half. On account of this rapid growth the nervous system of infancy and early childhood is very unstable. Influences of various kinds which would not materially affect the adult may be very serious to the growing child. The heat regulating centers are not well developed, hence slight disturbance may cause a high temperature; also changes in the respiratory and circulatory rate are produced by slight causes, therefore it is of great importance that proper care be given to these abnormalities in order that permanent damage may not be done to the delicate nervous mechanism.

Convulsions. The infant is particularly liable to convulsions. They may be due, first, to direct irritation of the cortex, as for example, injury to head during a forceps delivery; to intracranial hemorrhage; to injury of cord during complicated labor; to cerebral tumor, abscess, hydrocephalus and other causes. Second, to reflex irritation, such as worms, undigested food in the stomach, severe injuries, such as compound fractures or burns, retention of urine, phimosis, etc. Teething has been ascribed as the cause of convulsions but, though possible, it is exceedingly rare. Third, convulsions may be of toxic origin and here may be considered not only those resulting from uremia or asphyxia, but also those which occur at the onset of various infectious diseases, being particularly frequent at the onset of pneumonia, scarlet fever, malaria, acute indigestion, and gastro-enteric intoxication. The pathology of convulsions is obscure. The paroxysms are of course induced by cortical irritation, but for some unknown reason after the recurrence of convulsions for a period of time, a habit may be established whereby very slight causes may produce a convulsion, hence the importance of early recognizing and combating this tendency. Individuals differ greatly in their susceptibility to such attacks. They may be a forerunner of epilepsy or may have no relation whatever to the latter.

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The treatment resolves itself into two considerations: First, the treatment of the attack; second, treatment of the patient after or between attacks to prevent a recurrence. For treatment of the convulsion, chloroform by inhalation, morphine hypodermically, or chloral hydrate by rectum, singly or in any combination, may be given. The hot mustard bath or hot pack with ice cap to head is also good treatment. The convulsion controlled, it is necessary to determine the cause and endeavor to remove it. It is nearly always advisable to unload the intestinal tract by irrigation of the colon. At times it is good practice to wash out the stomach; then administer calomel to produce free purgation. The essential thing is that convulsions should be recognized as a symptom of serious nervous disturbance and the cause removed. The patient should be carefully studied and all sources of local irritation avoided. Fresh air, nourishing diet, regular habits and freedom from excitement are the important things. Drugs have a secondary place in the treatment of these cases.

Epilepsy. Some of the later writers on this subject have advanced the idea that epilepsy is not a disease entity but a symptom which may be one manifestation of cerebral irritation. Thus, instead of stating that we have idiopathic or symptomatic epilepsy, we have the "epilepsies," symptoms due to diseases of the nervous system. At least we should make the distinction between epileptic seizures in cases where we cannot determine a definite cause (the idiopathic type), and convulsions due to some well-defined cause (the symptomatic type), as, for example, the seizures following cerebral hemorrhage or in cerebral syphilis.

Epilepsy does not always begin in childhood, but probably in the majority of cases the convulsions begin early in this period. Few of the infants who, at times, may have had convulsions, develop epilepsy, yet this is always a possibility and should be borne in mind. There are two kinds of attacks described—grand mal, in which the convulsion is the prominent symptom, and petit mal, in which consciousness is lost for a brief time but no distinct convulsion occurs. Not all epileptics are insane, but most cases, children as well as adults, undergo a change from a previously normal state to one of gradually increasing mental deterioration. Hallucinations are sometimes noted before or after a seizure. Idiocy and imbecility are frequently accompanied with epilepsy. Most epileptics are very irritable; indeed, sudden, slightly provoked fits of anger may for a long time be the only manifestation of this little understood disease. It may follow some acute infections, not necessarily of the nervous system—for example, whooping cough.

As to the matter of treatment, there is no newly discovered cure, though there are many such fraudulently advertised. Snake venom has not proven safe nor effective. Operation in practically all cases is contraindicated. I have seen several sufferers who in addition to periodically recurring seizures have an ugly hole in their head. The end does not justify the means. However, it is necessary to remove any source of local irritation which may be discovered. Proper hygiene, diet, outdoor life, moderate mental exertion and good elimination may greatly lessen attacks. The bromides still furnish us the best results as far as medicinal treatment is concerned, but in moderation, for they are not without harmful effects. All opiates should be avoided.

Tetany is a condition characterized by tonic muscular spasms, which may be intermittent or continuous. It usually affects the muscles of the extremities, though it may extend to the muscles of the neck and trunk. It is almost always a disorder of infancy and rarely occurs as a primary disease. It is most frequently associated with rickets or follows some disturbance of nutrition, as chronic diarrhea or marasmus. It lasts from a

few days to several weeks, is rarely fatal and most cases pass away spontaneously. The treatment is to remove the exciting cause. The hot bath is the most valuable remedy for the spasms. Antipyrin is a valuable drug in this condition.

Chorea, or St. Vitus Dance, is a functional nervous disease characterized by aimless, irregular movements of any or all of the voluntary muscles, somewhat spasmodic in character and often accompanied by extreme irritability. This is a disease of later childhood and should not be associated with Huntingdon's Chorea or the chronic chorea occurring in late adult life. It is more than twice as frequent in the female as in the male and is very frequently associated with rheumatism. Hereditary influence is of considerable importance in the production of chorea. Overwork in school is also an important exciting factor, as is fright or the toxins from certain infectious diseases, as typhoid fever. Reflex irritation also may serve to produce choreiform movements. The ordinary course is from six to ten weeks, though it may become chronic and continue indefinitely. The management of the case is of equal importance with the administration of drugs. The choreic child should certainly be removed from school. Severe cases should be kept in bed and tonics in the form of iron and arsenic given internally.

Laryngismus Stridulus, or spasm of the glottis, is rather rare and belongs especially to infancy. It is a pure neurosis and is not to be confounded with spasmodic croup. It is frequently seen in children who are suffering from rachitis. The treatment is to stop the spasm which possibly but rarely results in asphyxia. Cold water sprinkled in the face may be all that is needed. Chloroform may be necessary. The general treatment of the child between attacks is of great importance.

The nervous child is often a problem for the physician as well as the parent. Many infants sleep restlessly, or are very easily awakened, or perhaps do not sleep a sufficient length of time daily. Genuine insomnia is very rare in childhood. Practically all these disorders may be traced to dietetic errors, or in many cases to incorrect habits. Outdoor life even for the young infant, proper diet and a regular routine will eliminate most of these troubles. Night terrors is more important. In this condition the child suddenly starts up from a short sleep, seems frightened and is with difficulty quieted. He may or may not recall the occurrence in the morning. He may see things of a frightful nature. There may be a relation between night terrors and epilepsy, at least some forms of this trouble closely simulate nocturnal epilepsy. In all these nervous children it is imperative that they should not hear stories of a fearful nature, never be frightened into quietness by stories that a bad man or black bear will "get him." To the delicate nervous system and rapidly developing imagination of a growing child the shock of such an idea is very great indeed, and may result in an unstable nervous system throughout life.

Many peculiar habits are noted among children, but unless they become chronic or can be associated with definite troubles, may pass away with no bad effects. Masturbation, nail-biting, sucking, etc., belong to the bad habits of children. Masturbation, though a filthy habit, has been very much overrated as a cause of mental disease. It is much more often the result of existing mental disorder. Disorders of speech, such as stuttering, stammering or forms of aphasia are seen in children and are most frequently due to organic brain trouble. If purely functional much can be done by careful training.

Headache may be noted as soon as a child is able to give reliable subjective symptoms. The cause may be legion as in adults, but some organic

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disease should always be suspected as a cause for severe and persistent headaches. It is well to remember that at times epilepsy manifests itself by unexplained headaches. Genuine headache is so rare in childhood that the physician should never consider it lightly but make every possible effort to find the cause.

The acute infectious diseases of infancy, such as epidemic spinal meningitis, tubercular meningitis and anterior polio myelitis, need only be mentioned. Cerebral tumor, abscess and malformations of brain and cord are comparatively rare. The mentally deficient, idiots and imbeciles, form an interesting class and require special study. In most of these there is noted some physical stigmata of degeneration.

Cretinism is a condition resulting in arrested mental and physical development due to the absence of the secretion of the thyroid gland. The symptoms are usually first noted at about the age of two or three years. We have a large head, a dwarfed body, a typical facial expression, thick lips, large tongue, generally protruding. The treatment is thyroid extract, but should be begun early. In many cases remarkable results have followed the use of this remedy.

Hysteria is not common in children, but nevertheless does occur, especially in later childhood. The diagnosis is often overlooked because it is not generally suspected. The symptoms are very similar to those found in adults.

Insanity is very rare in childhood. It is a remarkable fact that, as regards mental diseases, the influence of heredity does not make itself felt in a decided way until after puberty or adult life are reached. But frequently children show abnormalities which to the observing can be discerned as forerunners of a disturbed mental state. Children who later show insanity, very frequently, though bright, have shown peculiarities. They may be abnormally self-conscious, or may have aversion to association with others of their age. They may be abnormally religious or manifest excessive shyness, self distrust or unreasonable fear. They may even show paranoiac tendencies. Suicide is very rare among children and even if accomplished it is rarely the result of ideas of self-accusation. Children rarely have hallucinations. Cases are on record, however, of well-defined dementia praecox psychoses with very plain hallucinations and delusions in children as young as eight years of age. I have seen one case of manic depressive insanity in a girl of fourteen. It is not an infrequent thing for epileptics to have hallucinations. They may be irritable or euphoric, developing typical epileptic insanity even in childhood. Of course the dementia of the epileptic is well known.

In conclusion let me urge upon you as physicians to make a more careful study of the nervous diseases of childhood. Drugs have a very subordinate place in the treatment of the conditions I have outlined. Correct habits, systematic training and improved hygienic surroundings have a very important place in the conduct of nervous disorders and these abnormalities must early be recognized and proper treatment early instituted, for in this plastic stage of their development children are very responsive to training. Prevention in this field, as in other fields of medical endeavor, is of vastly greater importance than cure.

THE EXAMINATION OF SCHOOL CHILDREN BY TEACHERS*

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A bill was introduced into the Oklahoma Legislature, and later passed and became a law, requiring school teachers throughout the State to examine school children for physical defects, and when suspected or found to report them to the parents and advise the consultation of a physician, dentist, or an eye, ear, nose and throat specialist. A similiar law to this has been passed and is now in operation in several states of the Union, especially Vermont, Connecticut and Massachusetts. Our law is almost exactly like the Vermont law, which is the best ever passed by any State Legislature.

At first thought we are prone to believe that the law entails added duties and hardships to the already overworked and poorly-paid teachers, but this is exactly what it does not do. Instead, it will relieve the teachers of much worry and many, many sleepless nights, for it is the apparently dull and stupid boy or girl who fail to pass their grades, or even to keep up in their present classes, and who cause their teachers the most work and worry. As soon as this law is put into effect and is conscientiously lived up to by every teacher, our dull and stupid boys and girls will become in many cases the leaders of their classes, for it is my firm belief that there is not much difference in the brain or mental powers of children, but there is a difference in application to work, play and study. The one is normal physically, therefore has no reason not to apply himself or herself to the task undertaken. The other is weighed down by some physical defect over which he has no control. It may be malocclusion or decayed teeth. The former will cause poor mastication of food, indigestion and intestinal fermentation, and in consequence the boy or girl will have a frail constitution, way below par. The latter, or decayed teeth, is far-reaching in its evil effects. In the first place, decayed teeth are caused by infection. The result often is an abscess, whose pus either overflows in the oral cavity or mouth to be swallowed and cause deranged stomach and bowels, or is absorbed by the lymphatics and carried throughout the body to carry on its destructive process in various ways. It may cause an incurable heart trouble; it may cause a very serious kidney disease; it may cause an inflammation of the eye with total loss of sight; it may cause either muscular or articular rheumatism; it may cause a gall bladder trouble, or an appendicitis, but often it is gradually absorbed, so that the boy or girl does not really know they have anything the matter with them. They just feel puny and tired out most of the time. It is an effort for them to do anything. Some are pale and anemic and look poorly fed. These are the first to contract any contagious disease because they have no resisting powers.

How many here realize that about 97 percent of the school children of this country have diseased or faulty mouths? In the Oklahoma City schools Dr. H. H. Cloudman, the very efficient inspector of our city schools, tells me that his records show about 66 percent of decayed teeth and many others of mal-occlusion or irregularities of the teeth. A great many people have the idea that the baby tooth doesn't amount to much and should be let alone, even though it does decay away. The baby teeth are as important to the child as are your's or mine to us and should receive the same careful attention as to cleanliness, and the same treatment if decayed. If the gateway to the system, the mouth, is kept scrupulously clean and healthy, we will have a healthier, more intelligent, far more self respecting and all-around better class of citizens for the next generation.

Again the dull child may be weighed down by defective eyes or defective vision, and unless you yourself have actually carried the load you

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cannot realize just how the child is handicapped. Do you realize that only ten or twelve children out of every hundred have normal eyes, and therefore 88 to 90 suffer from some form of eye defect? Again, did it ever occur to you that 50 percent of people of whatever age having defective eyes, suffer on and off with headache, and that about 89 to 90 per cent of all headaches are due to some form of eye strain or defect, and not due to biliousness or to fatigue, hunger and many other things thought to be the cause? It is not unusual for a child during or after attacks of some acute disease, e. g., coryza, influenza, pneumonia, scarlet fever, typhoid fever, etc., to become the victim of headaches which persists and is aggravated into acute paroxysms by the use of the eyes.

Examination reveals the fact that they are subjects of some congenital anomaly of refraction which has for the first time manifested itself in the symptoms of eye strain, under the lowered physical tone produced by the disease, and they are never again able to avoid the use of correcting glasses. The facial twitchings of school children with brow pain, irritability of temper, uncontrollable restlessness, disturbed sleep, precocious appetite and poor progress at school, all of which make them the despair of their mothers and teachers, have many times been relieved by a pair of glasses. The known existence of these troubles in so many of our school children's eyes have led the school authorities, acting upon the advice of physicians, to advise and in some sections of the country to require that no child shall be admitted to the school until the eyes have been examined by an oculist.

The dull boy or girl, too, may be affected with enlarged or infected tonsils and adenoids. Today it is known that infected tonsils and adenoids contain some of the deadliest germs which pass through the lymphatic system into the general circulation, causing first enlarged lymphatic glands of the neck, so when the teacher sees a child with lumps under his jaw or along his neck she may know he has an infection either in his teeth, nose or throat, and should be advised to consult a dentist or physician. Second, after these germs get into the circulation of blood they may cause a disease of the heart, kidneys, appendix, gall bladder or bones. Yes, they may cause rheumatism, for today we know that rheumatism is caused by a germ, and we can take it out of a diseased tonsil and inject it into the dog and cause either muscular or articular rheumatism. But here again, as in infections of the teeth, we may not have the specific germ to cause either one of the above diseases, but we may have a continual absorption of less virulent germs which keep a child feeling tired, listless and its body way below the normal. He is not robust and active as he should be. He is usually pale and anemic. If he studies at all it is at an increased physical effort. No wonder that he doesn't keep up with his classes. See that his load is lightened and he will surprise you, for he wants to, no doubt.

Adenoids are situated not in the nose, as so many think, but back of the nose in the upper back part of the throat. They are also caused by bacteria invasion. They enlarge and fill the upper part of the throat, so that there is no room left for air to pass from the nose to the lungs, the normal way, but instead the child has to breath through its mouth. This is the unnatural and unhealthy way, for by this route the air cannot be warmed, moistened nor filtered of foreign matter as it is when taken through the nose. It therefore is not taken up by the blood of the lungs as well, so that in consequence the blood of adenoid children does not take in a sufficient amount of oxygen, nor does it throw off the normal amount of carbon dioxide. The blood is therefore deficient in red blood corpuscles and hemoglobin, consequently the child is pale and anemic.

Adenoids are the cause of inflammation of the eustachian tube, middle ear and mastoid process. In fact, about eighty percent of ear infections are caused by adenoids, and again fully 66 percent of all deafness is also caused by adenoids. Over 65 percent of those suffering from adenoids have some form of ear trouble, sooner or later. In all cases of hypertrophied tonsils, adenoids are always present. In all mouth breathers of children adenoids are the cause. In most cases of deafness or running ears of children, adenoids are the cause and should be removed. Adenoids cause defective speech, a fetid breath and also a partial loss of the taste and smell. An adenoid child is listless and has difficulty in applying himself to his play, studies or other tasks, of which he soon tires. He has fits of abstraction. I was taught, and I guess our school physiologies of today teach that adenoids will atrophy and disappear at puberty. Many physicians think this is really so and advise parents that their children will outgrow them. There is no more erroneous or damaging theory than this. The truth is that they may atrophy at any time, or may not atrophy at all, and that small atrophied adenoids once infected are always infected and are a constant menace to the ears by keeping up an inflammation which extends to the ear via. the eustachian tubes, causing what is known as catarrhal deafness.

We hear much talk about the conservation of our natural resources; of our forest reserves; of our oil and gas; of our coal; of our cattle and hogs. Why not more of the conservation of the health, lives and minds of our boys and girls who will be the men and women, the mothers and fathers of tomorrow? Yes, these same boys and girls are soon to take our places. They will be the teachers, farmers, ministers and doctors of tomorrow. Do we realize then the great responsibi ity which we, as physicians, owe them? Let me bring a few more facts and figures home to you. There are 20,000,000 public school children in the United States. At least 5,000,000 of these children suffer from eye diseases or defects which seriously impair their school progress. About 12,000,000 suffer from ear, nose and throat diseases or defects, which prevent proper school advancement.

Children who have defective teeth, eyes, ears, noses and throats cannot, unless relieved, receive any profit by public school education. To such children school work is a pain and a burden. They are always behind their classes, sometimes remaining in one room year after year, and when relieved and rendered fit for study they are regarded as mentally deficient and morally vicious, become personally disheartened and truant, drift into bad society and association, commit small and then greater crimes, and eventually may enter the criminal classes and then become an expense and care to the commonwealth as police-court defendants, and as dwellers in asylums, institutions and prisons.

Education is the greatest enemy of crime and where education is not possible crime is almost sure to raise its ugly head. The war cry against crime should then be "Education," and where education is difficult or impossible owing to physical defects or diseases, immediate steps should be taken to relieve or remove such defects so that children may be able to receive and profit by education and thus rear good, valuable and respectable citizens and save millions of dollars that can then be deflected into desirable channels.

New York City has 650,000 public school children and 30 percent of these children are two years behind their natural grades. Ninety percent of this misfortune is due to defective eyes, ears, noses and throats. Dr. Cronin found in one school 150 defective, backward children; 137 had bad tonsils and adenoids and 13 had defective eyes. These conditions were all

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removed and almost all of the children became good and tractable pupils. This is a striking illustration of what may be done in our schools.

It must not be supposed that eye tests among school children are merely for the purpose of correcting ocular defects by glasses. Such instances are, of course, extremely frequent, and many children are retarded in their school work by near-sightedness or by some defects such as hypermetrophia, astigmatism, muscular weakness, etc., which prevent easy and comfortable eye service, and which are usually followed by laziness, neglect of work, discouragement, truancy, and school abandonment. But there are many other ocular conditions which the school tests will disclose, such as the various forms of sore and red eyes, iritis, cataracts, cross eyes, and tear-duct diseases. Thousands of children already owe their emancipation from such diseases to the ocular examinations made in schools. One need not hesitate to say that every board of health and board of education in this country is committing a moral and social crime if they do not insist upon the annual systematic examination of school-children's teeth, eyes, ears, noses and throats.

In order to make the matter easy and practical Dr. Frank Alport of Chicago has prepared what he calls "A Visual Chart for Schools." This chart contains the usual test letters for testing vision. Each line also contains at least one letter for illiterates, which enables small children who do not know their letters to be accurately tested as to their visual capacity.

The lower portion of the chart contains the teachers' instructions, here reproduced, to demonstrate how easily the tests can be made. This portion of the chart should be torn or cut away from the upper portion on a line which is properly designated.

A Visual Chart for Schools. The advisability and necessity of examining the eyes and ears of children attending the public schools is now generally recognized by principals and teachers everywhere.

The system which is described furnishes a simple method whereby the eyes and ears of each pupil may be quickly examined by the teacher, a record made, and if an apparent defect exists, the parent notified. This system has been annually employed in many cities of this country and is rapidly being adopted by boards of education throughout the United States and other lands.

For making these tests a card of test letters has been planned, with complete instructions on each card. These cards are printed upon 6-ply Peerless board, 11x27 inches, with eyelet hole for hanging. The lower section, or that part of the card containing instructions and information regarding their use, is made so to readily be detached from the main body of card. The object of this is to allow the teacher to have before her these instructions while examining the pupil, with the test letters hanging at the proper distance on the wall.

Following are instructions for the examination of school children's eyes, for the use of principals, teachers, etc: Do not expose the card except when in use, as familiarity with its face leads children to learn the letters "by heart." First grade children need not be examined. The examination should be made privately and singly. Children already wearing glasses should be tested with such glasses properly adjusted on the face. Place the vision chart on the wall in a good light; do not allow the face of the card to be covered with glass.

The line marked 20 should be seen at 20 feet, therefore place the pupil 20 feet from the card. Each eye should be examined separately. Hold a card over one eye while the other is being examined. Do not press on the covered eye, as the pressure might cause an incorrect examination. Have

the pupil begin at the top of the test card and read aloud down as far as he can, first with one eye then with the other. For the use of those children not knowing the names of letters the sign "w" has been placed on each line in various positions. The child should indicate in which position this sign is placed. A cardboard symbol "w" can be easily cut out, which the child can hold in its hand. It should hold the figure in the same position as the one it is expected to see on the chart. For the purpose of convenience each line ends with the sign "w" in various positions.

Facts to be Ascertained. (1). Does the pupil habitually suffer from inflamed lids or eyes? (2) Does the pupil fail to read a majority of the letters in the "20" line of the test types with either eye? (3) Do the eyes and head habitually grow weary and painful after study? (4) Does the pupil appear to be "cross-eyed"? (5) Does the pupil complain of earache in either ear? (6) Does matter (pus) or a foul odor proceed from either ear? (7) Does the pupil fail to hear an ordinary voice at 20 feet in a quiet room? Each ear should be tested by having the pupil hold his hand over first one ear and then the other. The pupil should close his eyes during the test. (8). Is the pupil frequently subject to "colds in the head" and discharges from the nose and throat? (9). Is the pupil a habitual "mouth breather"? If an affirmative answer is found to any of these questions, the pupil should be given a printed card of warning to be handed to the parent, which should read something like this:

CARD OF WARNING TO PARENTS.

After due consideration it is believed that your child has some eye, nose and throat disease, for which your family physician or some specialist should be at once consulted. It is earnestly requested that this matter be not neglected.

Respectfully,

.....School.

If only an eye disease is suspected, the words "ear, nose and throat" should be crossed off; if it is only a nose and throat disease, the words "eye and ear" should be crossed off.

It will be observed that these cards are non-obligatory in their nature. They do not require anything of the parent. who is at perfect liberty to take notice of the warning card or not, as he sees fit. They simply warn the parent that a probable disease exists, thus placing the responsibility on the parent.

If parents neglect the warning thus conveyed, the teacher should, from time to time, endeavor to convince such parent of the advisability of medical council. Teachers are urged to impress on pupils and parents the necessity for consulting reputable physicians.

The tests should be made annually at the beginning of the fall term, and should include all children above the first grade.

Each teacher should examine all the children in her own room and should report the results of such examinations to the principal, such reports to be signed by the examining teacher.

The following simple form of report, to be fil'ed out by the teacher and handed to the principal, is suggested: Name of pupil. Do the tests indicate an eye disease? (Answer "Yes" or "No"). Was the pupil given a card of warning? This plan is simp'e and uncomplicated. No medical education on the part of the examiner is necessary and any intelligent teacher can make the tests without the slightest difficulty after a little practice. Every teacher should annually and systematically examine the teeth, eyes, ears, nose and throat of each child in her room. The school board should set aside one day in the early fall for this work. As there

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are about forty children in each room, and as it does not take more than five or six minutes to examine a child, it will be seen that a room full of children can be easily examined in one day. Thus by subdividing the work, an entire city, of whatever size, can have all its school children examined in one day. If it is deemed inadvisable to give up a day to the work, a few children could be kept after school each day for a week, and the tests can be made in this way. The teacher should have two or three assistants, in order to expedite the work, and these can usually be found among the children themselves. One assistant should stand near the test letters and point them out; another should make out the "Warning Cards to Parents," etc.

No teacher should complain of this work, for she is the one who is the most benefitted by it. One child who, through some uncorrected teeth, eye, ear, nose or throat defect continually lags behind his class and becomes idle, mischievous and disturbing, will cause the teacher more trouble in the course of a year than would the making of these tests. They are really labor and nerve-saving devices and the teachers ought to recognize this fact and encourage them. This has been the case where the tests have been systematically carried out.

The annual systematic, preliminary examination of school children's teeth, eyes, ears, noses and throats by school teachers is an agency of enormous incalculable benefit to the children, to the parents and to the community at large. Then why not universally benefit by it, especially as the cost is insignificant?

In conclusion, I want to say that after examining the teeth, eyes, ears, nose and throat of the poor boy and having them corrected, the teachers should be warned not to discourage him by telling him he is dull and stupid, for then he will not try. They should tell him that they are interested in him and that they know he will win if he only will try; that he has it in him to stand at the head of his class and that they will help him. It is just as much their duty to inspire the boy with confidence in his own ability to succeed and to make something of himself as it is too see that his defects are found and corrected, for that inspiration received in the school room may be the starting point of future greatness. It makes no difference how poor a boy may be, how ragged his clothing, how dirty his face. Kindle a spark of ambition within him and you may live to see that very boy Governor of Oklahoma or a U. S. Senator, for history is full of just such examples.

Herbert Spencer says all the really first-class men who have lived, the very few who are supremely great, were poor and working men. He names Socrates, the stonemason; Aristotle, the Mountain Guide and horse breaker; Michael Angelo, the stone cutter, painter and architect; Leonardo, the sculptor, painter, civil engineer. Sir Isaac Newton was a farmer and a clerk; Shakespeare was the son of a butcher, and held horses at the entrance of a theatre; then he became a stage-hand and a theatre owner and wrote plays, simply because no one else could supply good ones. Bobbie Burns was a farmer; Charles Lamb was a book-keeper; Thomas A. Edison was a newsboy on the Grand Trunk Railroad; James J. Hill was a farmer, an express messenger, a steamboat agent; Henry Ford was a fireman and an electrician.

EMPYEMA IN CHILDHOOD.*

Dr. G. A. Wall, Tulsa, Okla.

When the Chairman paid me the compliment of inviting me to read a paper before this Section, I se'ected this subject because I thought it might be interesting and of some value to the general practitioner, who is the one that first meets with the condition. It was not selected because it differs materially from the same disease in the adult, but because of its greater frequency in childhood and from the further fact that it often remains unrecognized until irreparable destruction to lung and pleura, or both, has taken place.

The disease is especially frequent in the early years of life, and occurs in early infancy. Cases are on record of the condition at eight weeks of age produced by a staphylococcus pyemia, and at ten weeks of age from a pneumococcal meningitis. That boys are more frequently attacked than girls is conclusively shown by one observer, who found in a series of 183 cases, 112 males and only 71 females attacked. The greatest frequency appears to be during the second and third years of life. The frequency of the disease during childhood is shown by the statistics of the Great Ormond Street Hospital for Sick Children, which institution admits children up to 12 years of age. Of the total admissions for five years, 1.7 per cent were cases of empyema. Of the causes, pneumonia seems to be the predominating one, lobar pneumonia the greatest exciting cause, but broncho pneumonia is not entirely to be overlooked, since cases do follow this disease in rare instances. The statistics of Dr. J. Graham Forbes, Pathologist to the Great Ormond Street Hospital, proves that the pneumococcus infection was the cause in the great majority of cases. He found that among 250 cases of empyema in children under 12 years of age, 186 or 74 per cent, were due to the pneumococcus alone; 21 were due to the pneumococcus mixed with the staphylococcus pyogenes; 17 were due to the streptococcus alone; 11 were due to the staphylococcus pyogenes alone; 1 to pneumococcus and T. B. mixed, and 1 to colon bacillus. These figures are to me conclusive evidence that pneumonia is the greatest exciting cause of empyema, hence bear the condition in mind in your pulmonary cases in children when they do not improve as rapidly as they should. Knowing this to be a fact, it is the physician's duty to find out as soon as possible whether or not he has a pleural effusion, for Osler tells us these effusions following pneumonia are purulent from the outset. Furthermore, we must realize that these purulent effusions seldom, if ever, terminate natural'y in recovery, but, if left alone, usually terminate in death. Waiting for absorption and resolution to take place is a forlorn hope, bad practice and a delusion and a snare. Should it, by neglect, be permitted to go on until by chance it terminates spontaneously, then it must do so by one of three ways: (a) By absorption of the fluid, which can occur only in small effusions; (b) By perforation into the lung and bronchus, and (c) By perforation of the chest wall—empyema necessitates—and the most favorable way, but in all these methods the damage done to lung and pleura may be great, and, while recovery may take place, time alone will prove to the contrary.

A disease that leaves lesions behind and which may cause trouble later on is not cured, but only apparently cured. Tuberculosis is very prone to attack lungs following an empyema, for reasons that are obvious without explanation. Realizing that we have a pleural effusion, draw some of the fluid and have a microscopical examination made. The fact that it may appear as only a turbid serum is not conclusive evidence that there is no pus present and that it may not be teeming with pyogenic bacteria. Later on, when

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the fluid becomes creamy and opaque, the diagnosis is easy, but the disease may have caused grave injury.

A condition not as yet mentioned in text-books was first recognized by the late John H. Musser, who gave it the name of interlobar empyema. In this disease the pus is found in the spaces between the lobes of the lung, and occurs frequently following pneumonia, but it seems as though it is not easily recognized. In all probability many so-called cases of abscess of the lung are cases of this disease, whereby the empyema breaks into a bronchus and in this way discharges its contents, resolution taking place later on. It is found most frequently following catarrhal pneumonia, localized in or near the interlobular space, and is due no doubt to the infection of the pleura which is present to a greater or less degree in all cases of this disease. A glance at the anatomy of the lung will serve to make plain the manner of its occurrence. The symptoms are those of an ordinary empyema.

Because of the insidiousness of empyema, and from the further fact that the pneumonia may have begun and ended and no physician called, it becomes your duty to go carefully and conscientiously into the clinical history of all probable pulmonary disturbance in children, not forgetting that the disease frequently follows scarlet fever, and may follow measles and pertussis. Many times the history in the case is vague and indefinite. The mother tells you that the child was feverish and cross, had a cough, labored and rapid breathing, all these lasting from a few days to a week or more, when the child seemed to improve, but she notices that it does not gain as it should. Instead it seems to be wasting daily becoming emaciated, pale, with perhaps a hectic flush upon its cheeks; still coughs occasionally; the skin is dry and harsh, and it has all the appearances of tuberculosis. The diagnosis even now may be no easy matter. True, we may find dullness, but this may be more pronounced over the apex in front, or over the axilla than it is at the base. The breath sounds are diminished, but well marked bronchial breathing may be found over the dull area. Do not be misled by the well-marked bronchial breathing over the dull area into believing that fluid is not present. A short time ago I examined a case of emypema in which the chest filled up after the tube came out, and I would ordinarily have made up my mind that the lung was solid, since the most pronounced bronchial breathing was present, but in this case I was positive that there was pus present because I put in the tube a week or so before.

The empyematous child looks so much like a tubercular one that even after the empyema is found we are almost forced to believe that we have a tuberculosis. That the T. B. will cause empyema appears doubtful, the weight of evidence being against that proposition. True, we find occasionally tuberculosis and empyema conjointly, but an empyema due to tuberculosis is rare in infancy and childhood. Where we find pus in the pleural cavity in the tuberculous, we generally find upon close examination that the infection is a pneumococcal one and the affected lung an easy roadway for the bacteria to pass to the pleura. In early infancy an empyema produces profound constitutional symptoms, quite out of proportion to the physical findings, so that at this age the cause of the infant's sudden and serious illness may often be obscure and the condition first discovered postmortem. Many times an empyema may closely resemble pertussis in its characteristics of vomiting, with paroxysms of coughing spells. The temperature is no reliable guide, for in the long-standing cases it may be normal, and even in recent cases it may not range very high when pus is present. On the contrary, in cases of serous effusion the temperature runs high, hence we conclude that plural effusion and high temperature means serum. The reason why we do not have high temperature when

pus is present is due to the fact that as soon as purluent matter forms within the pleural cavity, nature regards it as an abscess, the same as elsewhere, and attempts to wall it off, thereby limiting absorption.

The early recognition of these cases by the physician is of paramount importance, because only in early operation lies any hope for a perfect cure. The doctor who brings a case to the surgeon when the chest is bulging with pus deserves but small credit, for then the diagnosis presents no doubt, but the destruction to lung may be beyond repair and the foundation laid for an early tuberculosis. In these old cases the walls of the abscess are composed of the parietal and visceral pleura, upon which has been deposited a large amount of fibrinous material which coagulates, and later organizes. In some of these late cases, Beckman has found the limiting membrane one-half inch thick. As the fluid accumulates, the chest wall being unyielding, expansion cannot take place in this direction, hence the only way to make room for it is by compression of the lung, and this occurring, the limiting membrane of the abscess retains it in that condition, and if the condition is of long standing, the lung cannot re-expand because of the resistance of that membrane, even after the fluid has been allowed to escape. From this we are to conc'ude that if the abscess is drained early, before these adhesions become organized, the lung would quickly expand and obliterate the cavity. Not being a disease of the lung, the pulmonary tissue is but little, if any, involved in the inflammatory process, but both may coexist at the same time.

The earliest signs of an empyema are hard to define, but probably they are those of an acute fibrinous pleurisy, which may, but not of necessity, precede it. The passing into an empyema may be quite insidious. There may be no pain in the chest, very little cough and no dyspnoea, but the symptoms of septic infection with high leucocyte count are rarely wanting. In differentiating between serous effusion and empyema, the early signs are not of any great value, still a mention of them may not be amiss.

I shall only mention inspection in order to dismiss it, since in the early signs it plays but little part. Palpation is useful, for it enables us to more successfully determine the movements of the affected sides and to more accurately define the heart's impulse. By mensuration we can find a difference in the two sides of the chest, and in children the difference is great, having personally seen cases where there was as much as two and one-half inches difference between the wall and affected side.

In the very earliest stages percussion will be of minor value, but as the fluid accumu'ates the resonance becomes impaired, finally giving way to dullness. By careful and frequent examinations we are able to keep track of the height of the fluid, for as soon as it reaches the fourth rib in front the signs become very suggestive. We have at this time below the clavicle skodaic resonance, which is a hyper-resonance elicited by percussion over the compressed lung, immediately above a pleural effusion or basal pneumonia, but it is found in other conditions which the history alone will elucidate. It may also be found behind, just above the effusion limit. Still considers this a sign of very great importance and says that when it is present he does not hesitate to exp'ore the chest many times, until pus is found, and that is has rarely played him false.

As before stated, while an acute fibrinous pleurisy is not an empyema, and does not always precede it, still its presence should be a danger signal pointing to a possible occurrence later on of a purluent accumulation in the pleura. The appearance of an edema of the chest wall, unless localized to a part of one side of the chest, is no evidence of pus, for with a serous effusion a very rapid and generalized oedema of the chest wa'l occurs many times. To me it appears that a careful history-taking and a careful and

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conscientious interpretation of the same is the best and safest guide to the condition in the chest. In fact, this applies to nearly all our cases, whether they be empyema or some other disease. I am sure we are all too careless in our history-taking; we are too impatient in listening to our sufferer's story and many valuable hints in diagnosis are lost because of this. Our anxiety to pass on to the physical examination costs us many correct diagnoses, or makes a simple case more difficult. I am still of the opinion that the clinical history has not yet been superceded by the laboratory, but that the latter is only confirmatory and often times misleading. Moynihan constantly operates on the history alone, in cases of duodenal ulcer, and in 100 consecutive cases erred but three times. In one of the recent issues of the "Clinics," John B. Murphy has this to say:

"At a recent meeting of the American Surgical Society, and for the first time in all my connection with medical societies, the keynote in the diagnosis of practically all conditions under discussion at the meeting proved to be the clinical history. In this clinic (speaking of his own), we have been insisting for a quarter of a century that the patient's story is of paramount importance. In duodenal ulcer, gastric ulcer, in hepatic lesions and in gall bladder lesions, the members of the Surgical Association brought out the fact that the clinical history in diagnostic importance takes precedence over all other evidences of disease." In this disease the clinical history is of the greatest value, for when we have a little patient who has been sick for a week or so, with high temperature, cough, labored and rapid respiration, high pulse rate, who may or may not have had any of the eruptive diseases, and who does not improve after the acute symptoms subside, but on the contrary becomes pale, emaciated, with slight or no temperature, who has bronchial breathing over the flatness, then mark it down that you have in all probability an emypema, and now is the time to confirm your diagnosis.

There is only one way to do that, and that is by the trocar or aspirator. While many writers argue against their use, if properly used no harm can come from the careful handling of them. My personal preference is for the trocar. Beckman says: "I believe more good in the way of arriving at a correct and early diagnosis is to be gained from its use than the danger that may come from a late recognition of the disease. Personally, I have never seen any serious accident come from the use of the needle. In serous effusions, which may have become purulent, the relief from pressure attained by aspiration of a portion of the fluid often brings about a rapid absorption of the remainder."

Roentgen pictures, if made and interpretated by an expert, may be of value, but I question it. Among the complications of the disease, I shall mention only the two most serious ones, viz: Suppurative pericarditis and suppurative meningitis, because these complications cause the death of 50 per cent of children under two years of age, while in older children who are not so subject to these, fully 90 per cent recover if the disease is discovered within a week or two of its occurrence and properly treated, the recovery is usually complete; even the gap in the rib is usually fully healed in a few months and the breath sounds are normal. One can decide, with a fair approach to accuracy, what may be the nature of the infection from the appearance and color of the pus. Large masses of lymph indicate a pneumococcus infection, while seropus with some lymph indicates a streptococcus invasion, and the colon bacillus needs no introduction. In the infant the danger from a general pneumococcal infection makes the disease quite as dangerous as from any other infection, but in older children the outlook is better.

The treament of empyema, which means cure, and no remaining morbidity is strictly surgical. The proper surgical treatment dates back to

ancient history, since the first man who recognized and gave explicit directions for the treatment of this disease lived 2385 years ago, and his name, Hippocrates. While most of his ancestry was a myth, still this great man lived. He advised free excision down to a rib, trephining the rib, incision of the pleura and free drainage. This sound advice was neglected or lost and for many centuries aspiration was the accepted method of treatment, and not until Lister's time, not quite 100 years ago, did the operation again take the place it so richly deserves.

The methods in vogue today are aspiration, incision between the ribs and resection of a rib. The results of aspiration as given by Paget in "Surgery of the Chest," show it to be profitable, if not good surgery. One boy aged nine had 58 punctures in sixteen months before he was cured. Another had 123 punctures in eleven months, and many similar instances of torture are recorded, and withal only six recoveries in forty-eight cases. In twelve cases treated by Velpeau all died. Dupuytren treated 58, and 56 died, and Sir Astly Cooper did not cure a single case. So much for aspiration, and still I am of the opinion that it may yet have a place in the treatment of empyema. Take, for example, these cases where the empyema is very large, and where the child's condition is so bad that an anesthetic seems risky, then it might be a good procedure to draw off some of the fluid one day, and the next day, or later, the complete operation may be done. As to incision and drainage through an intercostal space, I am convinced after having done this a few times that it has no place in the treatment of this disease, and that it is unsurgical and unscientific. The opening is too small to drain freely, and the tube used is of too small a calibre, and if perchance the tube comes out it requires as much trouble and skill to reintroduce it as it did to put it in primarily. I do not believe it is a whit better than is aspiration and about as much of a job as the resection of rib. My surgical experience teaches me to feel that there is only one logical surgical procedure in empyema, and that is by incision and resection of a rib. In my opinion, it is the only way by which we can obtain free drainage, for the opening is large enough to permit the use of large tubes, and only large tubes drain successfully in this condition. If the tube comes out, it is easily reintroduced, and during the intermission the opening will remain patent.

The technic of the operation may be found in any surgical textbook hence I shall not elaborate on it here. I shall mention only one sequel and its treatment. I refer to persistent sinus. I have had good results from the use of Beck's bismuth paste, and it is truly worthy of a trial. From all reports it is harmless if the bismuth is arsenic free. If bismuth poisoning should come on, the mixture may readily be removed by warm olive oil injected into the cavity. With the glycerine-formalin preparation, I have had no experience, but the weight of surgical opinion seems to be against it.

In conclusion, I wish to impress upon you the great necessity for eternal vigilance in your pulmonary affections in infancy and childhood, and don't neglect your scarlatina and measles cases. If they do not recover as promptly and fully as they should, think of empyema and having thought of it, search for it. By following this rule you will save yourself much embarrassment and many lives.

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IMPORTANCE OF RECOGNIZING AND APPRECIATING DISEASED TONSILS AS A FACTOR IN CONSTITUTIONAL DISEASES.

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The study of tonsils are thoughts of ancient origin, as many of our predecessors have spent hours of toil to find how best to treat and care for two small glands located in the fossa tonsilaris.

The anterior boundary is formed by the palato-glossus muscle; the posterior boundary by the palato-pharnygeus musc'e, these uniting above to form the soft palate. The outer wall of the sinus tonsilaris is formed by the superior constrictor muscle of the pharnyx.

It is important to note that the tonsil is very richly supplied with blood which comes from the tonsilar and palatine branches of the facial arteries, branches from the descending palatine, ascending pharyngeal and dorsal linguae, of which the tonsilar branch of the facial is the chief source.

The nerve supply of the tonsil comes from the ninth, or glossal pharyngeal, and spheno-palatine, or "Meckel's Ganglion," and these in turn communicate with the jugular and petrous ganglions, the tympanic, auditory, olfactory, facial and vagus nerves.

The lymph which drains through the tonsils, directly or indirectly, comes from the posterior part of the nose, the naso-pharynx, the mouth, including tongue and teeth. After passing through the tonsil, the lymph drains into the superficial and deep cervical lymphatics and they, in turn, into the deep veins of the neck of the right side, and the thoracic duct of the left.

I bring the blood, lymph and nerve supply before us to refresh our minds of the many ways by which these small lymph nodes, when diseased, may affect the general system.

When once diseased, these glands are no longer the barrier nature intended them to be, but furnish a perfect media for germs to grow and reproduce themselves. The areas then that may impair the function of the tonsil and thereby throw septic material into the circulation, are cancer of the nose, tongue or lip, ulcers of the septum, tuberculosis of the same region, pus in any of the sinuses of the head, decayed teeth, and diseases of the mouth. I do not think that tonsils become primarily involved as often as is thought, but are more often affected through the portals above mentioned. Then we have as a result of these infections, directly or indirectly adenitis, myocarditis, endocarditis, so-called rheumatism, nephritis, uveitis, urethritis, appendicitis, gastritis, cerebro spinal meningitis, infantile paralysis and often an attenuated form of septicemia.

Since we have this number, and more, infections following diseased tonsils, is it not more important that we shou'd look after these patients as though we would a beginning cancer of the uterus? Moreover, it is the belief of the writer that the doctor who tells the patient to wait and see if the diseased tonsils won't atrophy, makes a more serious mistake and does his patient more damage than the doctor who will not advise his appendicitis cases to have surgical interference, or beginning tuberculosis cases to take treatment.

As we have seen so often the damage done to the physical and mental development and the cosmetic disfiguration to our patients, it is important that we should remember that the tonsils have a definite function in early childhood in order to recognize the tonsils that should be removed.

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Tonsils should not be removed unless there is some special indication before the child is three or four years of age. The small buried or submerged tonsil, associated with large cervical glands, should always be completely removed unless some other definite cause can be found for the condition. This is the fibrous tonsil that had the abscess at its base and can only be found by pulling the tonsil from its bed, and pushing the anterior pillar out of the way.

Tuberculosis is often of tonsilar origin. One of the most important points to be considered in judging whether a tonsil should be removed or not is the size of the tonsil in relation to the individual throat. All tonsils which seriously interfere with the respiration should be removed. Many local pathological conditions are caused by diseased tonsils. Many cases of otitis media could be prevented by the removal of tonsils. There is a distinct relation between diseased tonsils and many general diseases. Then chronic tonsilitis is only exceptionally a harmless local disease. In a majority of cases it leads after a shorter or longer period to important disturbances of the general health, and the removal of chronic tonsilitis is in most cases a pre-requisite to a permanent cure of secondary diseases which depend upon it. Where recovery does not take place in a short time, examination shou'd be made for the existence of other chronic infectious conditions, such as affections of the accessory sinuses and teeth. The only certain method for the cure of chronic diseased tonsils is the radical removal, as neither the conservative measures nor the incomplete method of operation afford prospects of a certain cure. Counter indications to the method of radical removal of the tonsil have neither a practical nor a theoretical basis. The technical difficulty of operation are for the most part overestimated. Experience shows that there is no particular danger depending upon the operation. Unfavorable results have not been seen or been observed to follow it, nor are they to be expected on the basis of our knowledge of the anatomy and pathology of the faucial tonsil.

DEVELOPMENT OF THE CHILD.*

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I have chosen this subject principally because I expected a number of the laity to be present. The question of inviting the mothers and others interested of Bartlesville was discussed last year and the chairman of this section reminded me of this fact in January of this year, when he asked me to prepare a paper for this section, and suggested that I should prepare my paper along such lines.

I will discuss the child from one year old up to six years. At about the age of one year the young mother, who makes the raising of her child her chief aim in life, which is proper that she should, and who wants to raise it properly, begins to look on the question as a serious business, which it is. The young mother (I say young because the experienced mother usually has her own way of doing things and will not so readily adopt new ideas), should have some competent authority to guide her. This is not always obtainable from her mother, grandmother or neighbors, although they are usually overflowing with advice and there is so much of it that even if some of it were good the mother would be unable to separate it from the bad.

In my opinion there should be some standard work on children in any home where children are being raised, such as Griffith's "Care of the Baby" or Dennett's "The Healthy Baby." An authority of this kind, if followed, will enable the mother to be certain of her course and prevent confusion of

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ideas which are advanced by those with whom she comes in contact. I may also add that it has been my experience that a work of this kind in the hands of a mother does not make her overconfident of her ability to care for her child in sickness, but on the contrary, teaches her where her efforts should cease and those of a physician begin. She is also more competent to judge whether she has an up-to-date, intelligent physician or not, and in such cases it behooves many of us to be more progressive and get out of any rut into which we may have fallen.

In getting away from generalities, we come to a question that vitally concerns the baby, and that is the diet after one year of age. In the first place I will mention a few "don'ts." Don't begin to sweeten food to tempt the child as soon as it is taken from the breast. On the contrary give no sugar, sweetened cookies or syrup. Don't fix up highly seasoned or fancy dishes to tempt the child's appetite. Plain, wholesome, and well-cooked food is all that is necessary, with milk predominating, which is best pasteurized for children up to the age of three years or more. Don't keep the child's hands full of eatables from morning till night, but arrange for extra meals at regular intervals so that he may not suffer from hunger, but be hungry enough to have a healthy appetite at meal time.

A diet list for a child a year old should consist of milk with stale bread, well cooked porridge of oatmeal, cream of wheat or farina, a soft-boiled or poached egg with bread broken in it, bread moistened with dish-gravy, bread thinly buttered, and tapioca or rice pudding in small quantities. Of course this whole list is gradually gone into from the breast and milk alone and gradually increased as the digestion permits. By the age of 18 months we may give the child baked potatoes, mashed and moistened with dish-gravy or beef juice, chicken broth with rice, some minced white meat of chicken, or turkey, or minced roast beef or fish, toast and butter, custard, and rice pudding made with milk.

At two years of age a child may have a small amount of beefsteak, roast chicken or beef, rice, macaroni. By the age of three years the child may and should begin to eat many kinds of meats, broiled or cooked so as to be easily digested, and may also have a greater variety in the manner of cooking his eggs. Proteids make growth and are to be found in meat, eggs and milk. He may also have potatoes, spinach, peas and green beans, most any kind of fruits if stewed and sweetened; also may have most any kind of light puddings and occasionally ice cream. A good general rule to remember in feeding a child is that a healthy body is made from pure and wholesome food of a substantial character and not from puddings, candies, starches, and nick-nacks. I may here add that adenoids, large tonsils and bad teeth do not come from wholesome food and fresh air, but from candies, sweets, stuffy rooms, and general negligence. Everyone wants his or her child to be strong, robust, self-reliant and not pale, puny or made of a "bunch of nerves." Children become one of these extremes not by accident but by food, example and environment.

A child must have food for perpetual motion and growth. If we would have him steadily grow and at the same time be natural by continued motion, we must have wholesome food which is all put to use by assimilation and not allow him to stuff his stomach with a lot of waste, which may taste good to him but which acts as a detriment by occupying valuable space in his anatomy and because of its unnatural qualities seriously interfere with the digestion of proper food. In regard to food, two quotations from Dr. Woods Hutchinson would be to the point: "Still abideth the trinity of growth; food, air, exercise; these three, but the greatest of these is food." Also: "Any child that does not eat, and eat at least once a day, like a saw-

mill, with eagerness, avidity, and an audible noise, unless restrained, is not healthy."

Another question that the mother is usually concerned about is the proper exercise for the different ages. A child's life is made up of food, play and sleep, which makes these subjects of much importance. The first thing to do is to dress the child so he can exercise every muscle of his body without hindrance. Let the yearling take his own time about walking. Don't try to make him precocious in this line, for it is always injurious. His instincts tell him when he can walk. When he does begin to walk we must remember that he cannot take long journeys on foot. Allow him to walk as much as he wishes and then furnish some means of riding. As he gets older a tricycle is very good. There is a great deal of good exercise to be had from one that amounts to sport. Another form of exercise which is very good for growing children is swimming. It is well to guard against over-exercise in this, for the excitement is sometimes so great that they may go on to complete exhaustion. All outdoor sports should be encouraged in all children—girls as well as boys—and the same games are well for both, at least till girls are twelve years old or more, and they should still be encouraged to play outdoors.

Dr. Griffith suggests that a girl should be a tomboy as long as she pleases; that it is easier to tone her down and "make a lady" of her after a while than it is to tone her up if she has no good constitution on which to build. Don't try to makes "ladies and gentlemen" out of children, but allow them to be natural and dirty most of the time. If the weather is too bad out of doors, see that their playrooms are well ventilated and allow them to make all the litter and noise they wish. Some may think that there is too much stress laid on exercise and that the mind is neglected. If the child's play is guided and his impulses somewhat checked his mind will come along all right with the growth of brain, muscle and bone. An active, sturdy child is always considered "bright" and promising. Like the bear's cubs in the old legend, which were born as shapeless lumps and "licked into shape" by the mother bear, children are born little lumps of possibilities and played into shape, both body and mind.

We must not forget that pure, fresh air is also absolutely necessary for normal growth and development. Oxygen is essential if we would have red blood, and is only to be found in normal proportions in pure air. It matters not how much exercise a child may take, he will not be robust and strong unless he has plenty of oxygen both day and night. This is necessary for good brain growth as well as physical, and further, the morals and disposition of a child are more likely to be right if he is allowed to grow up in lots of sunlight and pure air, which is only to be had in God's out-of-doors. We hear so much of the influence of environment on the morals of children, and that usually refers to their associates, but really goes farther and includes the atmosphere, and that not figuratively speaking. It seems that oxygen stimulates the good in humanity as a whole, and dark rooms, foul air or dirty alleys stimulate the criminal instincts. Food, also, plays an important role in the making of character.

Another question of importance in a child's development is sleep. Upbuilding processes are at a minimum while we are awake and at a maximum while we sleep. Sleep is the best tonic in the world for a child, or anyone else for that matter, and he must have not seven or eight hours in the twenty-four, but ten, twelve, fourteen or sixteen, according to age and inclination. Don't try to keep him awake by an unnatural amount of amusement, but rather encourage him to sleep. Some of our puny, pampered children need instead of more play and amusement more sleep, and that with windows wide open.

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I wish also to discuss the question of mental training as we usually understand it, which is reading, or training to do anything with accuracy and precision. Very little should be done toward development along these lines till the child is six years old or more, and then his play should only be guided and his mental work should be play to him. Games are devised as a means by which physical exercise can be had. The same would be as good to encourage mental effort. The chief business of a child is to grow up, out and all around, in no particular direction. This applies to the brain as well as body. Strong mental effort will not develop a child's brain but stunt it and make him narrow and incapable in later life. It is well to consider the fact that a man's life is measured by its breadth as well as length. Development of muscle comes after growth of the body, and development or training of the faculties comes after the growth of the brain. A precocious child is not to be desired—that is, one who can read very early, write or memorize. Nothing is gained by this but much harm may be done. A child's eyes are far-sighted and in the process of development become such that he can accommodate the eye to nearer objects. This is a process of natural development and by forcing him to accommodate himself to closer objects cause an overcorrection of the lenses producing near-sightedness in later life. After ten or twelve years of age the eye is fairly well fixed and the shape is not changed much by use, while it may become fatigued. Also, if a child is taught to read and write too early and too much is made of these accomplishments, there is the possibility of too much attention to such things when he ought to be romping and growing. And, as mentioned above, we are more likely to have mental stunting than mental development. A child taught to read and write at the age of four years will be outstripped in later life by the one who "never saw a letter" till he was seven if he be a strong, robust, fresh air child. Further, there is very little good to be had from kindergarten training unless it is merely supervised play. It is unnatural for a child to sit on a stool longer than 15 minutes, so don't make him do it. If we look carefully after the physical in children the mental will not be such a question. School work should never interfere with the general health. There should not only be well ventilated school rooms but plenty of outdoor play to keep the physical body to the very highest pitch of efficiency, and the mental body is most likely to be. It takes pure, red and actively moving blood to make keen thinkers as well as strong bodies. A child's years spent in school are certainly wasted if it leaves him an invalid. What doth it profit a man if he gains the wisdom of ages and loses his health, or what would a man give for his health? In closing, I will give a quotation from Horace Mann, which applies to this part of the subject: "All through the life of a feeble-bodied man his path is lined with memory's gravestones, which mark the spot where noble enterprises perished for want of physical vigor to embody them in deeds."

HYGIENE IN HOME AND SCHOOL.*

Dr. T. A. Rhodes, Goltry, Okla.

Hygiene is the science of health, or the observance of the laws governing health. God created the universe and everything that is in it, down to the minutest particle, with laws governing His creation, and these laws are unchangeable and immutable, and it must as surely follow as the night follows the day that the violation of nature's laws will bring a penalty.

"Whatsoever a man sows, that shall he also reap," holds good in the physical world as well as in the spiritual, and this brings us face to face with the great question of obedience or disobedience to the law, be it natural law or civil law.

*Read before Section on Pediatrics, Oklahoma State Medical Association, Bartlesville, May, 1915.

Every ache, every pain in our bodies, is but a warning that some law is being or has been violated; every case of sickness, no matter what, is beyond a question the result of the violation of some hygienic law. It is difficult sometimes to say just when or how the violation occurred, but it occurred just the same, and we can find it if we search far enough.

We will never be able to know and understand all the laws that govern nature or the universe, consequently we will never understand all the laws of health; but with what we already know, and what we are learning, and what we will learn out in the future, we will eventually know a good deal about them; not that we will ever have a perfect knowledge of them, and thus prevent all sickness, but we will finally learn so much about these things that the practice of medicine will be almost entirely preventive instead of curative, and sickness of all kinds will be reduced to the minimum; physical suffering will mostly be done away with, and the average human life will be much lengthened. These things must follow a more thorough knowledge and observance of hygienic laws.

There is no period in life so good, or opportune, as during childhood to begin the teaching and practice of hygiene. The impressions made in childhood are the most lasting, as no doubt all of us could testify; but as the subject of hygiene is so broad it could not be treated in a general way in so short a paper as this must be, I have been limited to the home and school.

I believe I can state without successful contradiction that the home offers the best opportunity for teaching the child hygiene. It is the one place where authority is absolute. The parents of children can, without question or interference, emphatically enforce any reasonable rule or regulation of the home. The child is bound to obey the parents. This cannot be done in public institutions to the fullest extent.

The great difficulty met with in teaching hygiene in the home is that the parents are too often woefully ignorant of such things themselves, or, if not ignorant, they are so indifferent, or indolent, they don't care whether their children are taught them or not. It doesn't matter whether it is ignorance or indifference, the result is the same. The child is allowed to grow up without knowledge of hygienic laws.

The home should be the cleanest place on earth, because in it the baby comes into the world, grows into childhood, on up into adult life (that is, if it escapes all the snares, pitfalls and dangers of childhood), and the kind of man or woman it makes physically, is largely determined by the hygienic attention given the baby and child. If the child is to grow up into a strong, healthy adult, it must have a reasonable application of the laws of health.

In this short paper we can only notice a few of the things that make for or against the child's welfare in the home and school. I think the air breathed in the home should claim our attention first. As doctors we all know the importance of fresh air. Many of our clientele know of its importance, and some of them apply their knowledge to good advantage, while others, either from ignorance or indifference, act as though they thought fresh air would be poisonous, or contaminating, or in some way be very injurious to their families' physical welfare. How often have I (and I am sure every doctor here has had the same experience) gone to the home of many of my patrons and found a child, or perhaps several children, sick with diphtheria, measles, scarlet fever, pneumonia, tonsilitis, or some other trouble, to find the sick ones and well ones all in the same room, with every door and window tightly closed, and sometimes every crack and crevice about the room calked with rags or something of the kind, preventing in this way the possible entrance of fresh air into the room, or

the exit of vitiated air, and more than likely a red-hot stove going at the same time, burning what little oxygen the room contained. I often wonder how many patients get well as do, under such circumstances. In many such instances I have opened the windows and arranged for ventilation, and just as often have I had the parents remonstrate and say the air would give the patient cold, and make it worse, and more than likely, in spite of all talk and instruction, I would return next day to find the doors and windows closed and the cracks calked as tight as ever, the stove perhaps a little hotter, and the patient a little bluer and sicker. And then I would find myself wondering if some people would ever get any sense, and if it was worth while to try to teach them anything about the laws of health. I find it very hard sometimes not to be pessimistic, but then I know we are supposed to be optimists, and hammer away whether we see any improvement or not, and we do.

I think a little should be said about water. If we were to judge all homes by what we see in and about some of them, we certainly would conclude that it either never rained, or there were no wells or cisterns, or an application of a little clean water would be a crime against humanity.

When I see the lack of application of water in some homes, I am reminded of the little ditty we used to sing: "Mother, may I go down and swin? Yes, my dearest daughter! Just hang you clothes on a hickory limb, but don't go near the water." I have seen children, and grown people, too, as to that, who looked as though they never had a good bath in their lives. Their skins were so rough and dirty it reminded one somewhat of a hippopotomus—I mean the skin, not the people. I am glad to observe that this condition is not the general rule, but many homes could be made more enjoyable and their inmates could be made much more fit to enjoy them by the simple application of a little clean water. I don't believe that getting in a bath-tub every day and scrubbing the skin with some rough rag or towel, until it almost bleeds, is necessary, but I do believe it should be washed often enough to keep it cleansed of dirt and sweat and its function active, also it should be covered with clean clothing, whether coarse or fine. John Wesley said: "Cleanliness is next to Godliness." We can't be gods, but we can get plenty of clean water and keep our bodies and clothing clean.

Great emphasis should be laid on the feeding and nursing of children. Babies should have regular and stated times for nursing. For the first month after birth, about every two hours; second month, every two to two and a half hours; about three hours for the third month, and so on, according to age. I believe there is nothing that will make more for the baby's health and welfare than regular and proper nursing or feeding, and nothing can give more trouble or do more damage or give the doctor more anxiety than irregular or improper feeding. Mothers don't seem to realize that the baby's somach needs rest; that the cross, peevish, colicky, crying baby, with indigestion, and perhaps diarrhea, is so nine times out of ten because of their indiscretion in feeding or nursing. It is hard for them to understand that a baby is not hungry every time it cries or frets. They should be taught and made to understand that to nurse a baby every half hour or hour is, with few exceptions, the cause of their crossness, and that to put a fresh batch of milk into the stomach where the process of digestion is still going on is entirely wrong and a great injustice to the child. The idea is to give the stomach time to digest and dispose of one feeding, and then rest awhile before pouring in another batch. It is one of the hardest things I meet in practice to get mothers to understand that it is not the amount a baby takes into the stomach that does it the good, but the amount it digests and assimulates. When mothers learn and

practice this they will have better and healthier babies and children and a little time to do something else besides trot their babies on their knees and give them paregoric.

After the baby has grown to childhood, and even to men and women, they often form the very injurious habit of eating between meals or at all hours of the day. It is a crime against the child to allow it to run from morning till night, with a hunk of bread and butter, or some other stomach-stuffing food in its hands, when by so doing it will ruin its digestive apparatus if it has not already been ruined by the way the mother nursed it when a baby. I say away with the infernal habit of stuffing babies and children between meal times. Let mothers learn and remember that babies and children have stomachs and that their stomachs need rest as well as their bodies if they would have them healthy.

The clothing and dressing of babies and children should receive proper attention. They should be dressed according to the weather. A child should be dressed sufficiently warm in cold weather to keep its body from becoming unusually chilled; but too often, unfortunately, children are allowed to go poorly clad in cold weather, very much like some of our women —about enough clothes to make a jug stopper. Such improper dressing is, I am sure, the cause of many cases of colds, pneumonias and kindred diseases. Often children get the clothing wet or damp and the parents allow them to keep the wet clothing on, apparently thinking it will do no harm. They don't seem to realize that chilling the surface of the body drives the blood internally, creating congestion of the internal organs—a condition favorable to the development of many diseases. Then I have seen women take a new-born baby in the hot summer months, put a flannel shirt on it, two flannel skirts, a dress, then wrap it in a blanket and put it in bed with its mother, and cover it up with a quilt or two, and then wonder why the baby was so cross. When told it was dressed to warm they would turn up their noses and sniff, as much as to say, "You don't know what you are talking about. I guess I know how to dress a baby," and then I would think God pity the baby. I would that some old women would either learn that babies are human beings and should be treated as such, or die and go to heaven and give some one else a chance to do something for the babies and children's comfort and welfare.

The fly—yes, the poor, old fly! He certainly has a multitude of sins to his credit, and if he is guilty of all he is accused of his stay in purgatory will be rather indefinite. I believe the fly is guilty of many things, but I believe he is often made the scapegoat for the offenses of others. On him has been laid much iniquity that does not belong to him.

I have seen him in some homes flourishing, it seems to me, in all his glory. I have seen some homes where it seemed the screens were to screen him indoors instead of outdoors. I have heard his hum and roar like the sound of swarming bees. I have seen him digging, boring and sucking at the eyes, nose, mouth and ears of children who have been unfortunate enough to be inmates of homes where he had full sway. I have seen him roam at wi l over the food consumed by these same children, when I well knew he had but recently come from the manure pile or the privy vault, and I have wondered at such times if any of the fami y would escape some serious sickness transmitted by his flyship. To my surprise, after all I have read about his wonderful ability to transmit disease germs, many families have escaped without a single scratch.

I would not underestimate the importance of swatting the fly. I say swat him, kill him, exterminate him. He is a nuisance and a menace, but while we are swatting let us swat some of the other things that menace the welfare of our homes. Ventilation, proper feeding, proper clothing,

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proper bathing and cleanliness of all kinds is just as important as killing the fly. I would not say to be less warlike toward the fly, but I do insist that we make the battle general all along the line, so when the fight is won the victory will be complete and not just one little vantage point gained.

This paper is growing to long. I must quit. There is much more to say, and much more should be said, but it cannot all be said in so short a time. If I shall have succeeded in causing some discussion of this important topic, or made some impression for good on some mother here, I shall feel repaid for writing this paper.

For the last part of my subject, suffice it to say, that what holds good in the homes holds good in the schools. The conditions are somewhat different, but hygiene is hygiene wherever found and it should be applied to home, school, town, city and country at large. And I am glad to make this observation—that the people generally are becoming aroused to the importance of public hygiene and giving willing aid to the authorities in many places in enforcing the laws governing it.

TUBERCULOSIS OF THE KIDNEY*

Dr. John Overton, Tulsa, Oklahoma.

The study of this condition presents many interesting features. It has been shown by many investogators that in acute miliary tuberculosis the bacilli are practically always found. In cases of pulmonary tuberculosis probably ten per cent show bacilli, and in those dying from tuberculosis the presence of renal disease is variously given from 25 to 70 per cent. Israel claims that one-third of all the suppurating diseases of the kidney are tubercular in nature. It has been shown that tuberculosis may enter the body without leaving evidence at the point of entrance, and so it is believed that it may leave the body through the kidneys without producing disease in them. So it is possible to find tubercle bacilli by staining and cultural methods and to produce the disease in animals by inoculation from such cases without pathology in the kidney. If the kidney is infected with tuberculosis it may be of miliary or non-surgical form, the caseous form, pyelitis, catarrhal or ulcerative, or we may have a kidney completely destroyed, leaving nothing but a large pus sack with the initial infection being displaced by one of mixed variety.

Secondary to the disease of the kidney we have involvement of the ureter, and in about 80 per cent of the cases involvement of the bladder. In practically all cases the infection is hematogenous in nature and hence descending. The possibility, however, of an ascending infection from genital tuberculosis is allowed, especially where there is some obstruction in the bladder and hence "damming back" of the urine. It is also believed that in practically all cases one kidney is diseased some time before the other. The average length of life after its recognition is five years, though many die sooner. Some pathologists claim to have found healed tubercular lesions. This is doubted by many and cases of spontaneous recovery are thought to be one in which the ureter is blocked and the kidney undergoes what is expressed as an autonephrectomy. When this disease was first attacked by surgery the immediate and remote mortality was necessarily high, but more recently on account of earlier diagnosis and better judgment it has been reduced as low as three per cent in about three hundred cases at the Mayo Clinic.

Diagnosis is sometimes comparatively easy, especially where all the suggestive signs are prominent, but frequently the disease is latent, or,

**Read before the Oklahoma State Medical Association, Bartlesville, May, 1915.*

as Dr. Gordon of Vancouver expresses it, silent, and is therefore overlooked or discovered late. Where a patient is losing weight and strength, without other assignable cause, following a careful examination, we should suspect this disease and endeavor to eliminate it or prove it. Obtain a specimen of urine and if pus or blood are present careful and repeated examinations should be made for the bacilli. On account of the presence of other acid-fast bacilli, especially the smegna bacillus, we should use the utmost care in the collection of the urine. In the male, Young advises a thorough cleansing of the penis, irrigation of the anterior urethra and the passing of the urine in three separate glasses, examination only being made from the last portion. In the female it is thought by some that the specimen should be obtained only by ureteral catheterization. Where we fail to find them and still suspect their presence, we should make repeated examinations, esperially following any local or constitutional exacerbations. The injection of tuberculin may be of benefit; the use of cultures may clear up things, but we must not fail to appreciate that we may have tuberculosis in conjunction with gonorrheal or other infection. Should these tests fail, then use the inoculation of guinea pigs by catheterized specimen; should it prove positive, this clears the diagnosis; should it prove negative, it still leaves us in doubt. Occasional y a radigraph may disclose diseased caseous areas in the kidney that are not discharging bacilli into the urine. The presence of pus in an acid urine from which no culture can be obtained is very suggestive. Hematuria is a common sign and quite a free flow of blood may be an early evidence of disease of the kidney, as it sometimes is in pulmonary trouble. Polyuria and diurnal frequency are common symptoms. Pain in the kidney is not usually present unless there is an intermittent obstruction from within. Tenderness is an unreliable sign, since the sound kidney is often the more tender. Tumor of the kidney may be present and is generally due to a pyonephrosis.

Symptoms of cystitis most frequently call our attention to the trouble. The bladder is very sensitive to the introduction of any foreign solution, especially silver nitrate. The cystoscopic findings vary from a slight redness or oedema about the ureteral orifice to extensive ulceration and numerous nodules.

If then we have suspected tuberculosis of the kidney and have proved it by the various methods indicated, what should be the treatment? In the first place we should determine absolutely that there are two kidneys, that only one is diseased, or badly diseased and that as far as we can tell by the present functional tests, the sound organ is sufficient for the demands that will be made upon it. After doing this shall we carry out a general hygenic course of treatment, or resort immediately to surgical methods? It is generally believed by those who have given most study to this affection that since we cannot give the kidney functional rest we should resort to operation as soon as we have obtained all data relevant to the case.

Operation decided on, in some late cases of suppuration, we are forced to do a simple drainage operation. In practically all cases, however, lumbar nephrectomy is the operation of choice. In doing this operation the chief dangers are hemorrhage and injury to the peritoneum, pleura, or, as lately called attention to by Dr. W. J. Mayo, the duodenum. This may follow injury with the forcep in attempting to clamp bleeding vessels, or later, to a slow infection of the stump with involvement of the duodenum and head of pancreas.

If the ureter is obliterated by the disease, he claims that ligation and sterilization of the stump are sufficient. If the ureter is patent and there is no mixed infection, five to ten minims of a 95 per cent solution of

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phenol are injected and the stump ligated. In both these instances do not use drainage. When the kidney is still secreting and a mixed infection exists, it is safer to bring the ureter out and suture it in the external wound.

I claim no originality for any of the ideas given in this paper. I desire to express my indebtedness to standard text books and articles appearing in the journals, most of which I cannot now refer you to. Recently I have consulted several articles which I have quoted from, namely, one by W. J. Mayo and one by Lawrason Brown in the A. M. A. J. for March; one by Dr. Gordon of Vancouver, B. C., in Surgery Gynecology and Obstetrics for February, 1915. I feel that this subject is worthy of the best efforts of the best men and hope you may profit by this study as I have done.

DISCUSSION.

Dr. A. S. Risser, Blacklell: I don't think it is quite fair to ask me to open the discussion on this subject, as I came in late and did not hear all of the paper. The subject of Tuberculosis of the Kidney is one which has only been opened up within the last five or ten years and, as is true with so many other subjects, the moment our attention is called to the subject we see new visions open up before us.

We often find cases of so-called bladder trouble, irritation of the bladder, and I have a case of a young man at our town who for about four years has been a sufferer from bladder trouble. His first symptom was an increase in the number of times of urination, both nocturnal and diurnal, so that for a course of about two months or so he was unable to do any work of any kind because every ten or fifteen minutes he found it necessary to urinate. A microscopic examination was made and bacilli were found in the urine. The whole bladder seemed to be ulcerated beyond any possibility of repair. By a slight treatment and means of rest that young man grew absolutely well for two or three years. About four months ago he had a return of the same symptoms, was absolutely uncapacitated for his work, and was run down in flesh until he was nothing but skin and bones. After a length of time the disease has receded, and at this time he is doing a man's work. Those are the things that often throw us off our guard.

Dr. Clark, El Reno, Okla: There is one thing that has been mentioned, and that is a careful diagnosis. Be equally sure that at least one kidney is good before you take any surgical procedure. It is fairly easy for the diagnostician to tell whether a man has one or two good lungs, and it is fairly easy to diagnose the condition of the abdomen, but it is not nearly so easy for a man to discover whether his patient has one diseased kidney, or two diseased kidneys, or any at all. The finding of the bacilli in the kidney is often very hard. I think, perhaps, Dr. Overton in his paper said that it may require an examination of the urine time after time before one may be able to tell whether the kidney contains bacilli. There is one thing that should guide you and that is blood in the urine; that is almost a sure sign of disease. In the case of a young woman I observed who was brought into the operating room for operation. She seemed to be in fair physical condition almost normal, so far as the flesh was concerned. Dr. Bilege was in charge of the case, and operated. One kidney was found to be passing almost entirely pure blood, although it appeared as though there were two diseased kidneys. It may be that two diseased kidneys will keep up a secretion sufficient for a number of years, while if you remove one of those kidneys it may decrease the secretion of the kidney remaining to such an extent as to have your

patient go into urinemia and pass away. The point is simply a question of diagnosis. The means are placed at our hands and before a man goes ahead on a matter of this kind he should be absolutely sure of the ground that he stands on.

Dr. Huffman: I seems to me that we should have no errors in diagnosis when we have the advantage of using the cystoscopic examination to observe the kidney. I believe especially in the female there are a great many conditions diagnosed as pus kidney when they are simply local conditions of the bladder, or conditions of other parts of the pelvis.

Dr. Overton (in closing): I purposely did not take up the examination of the bacilli in detail. From what observation and experience have taught me, I believe it takes more hard work to accurately diagnose bladder and kidney conditions than any other. I call to mind a young lady of 18 years of age who had both ureters catheterized and urine examined by a competent man, with positive finding of T. B. from both. She, of course, could not be operated on and was given only a few months to live. She, however, improved very much in health and bladder symptoms and later married.

Another case was of a woman 45 years of age whose first symptom was sudden, sharp hemorrhage. She developed a severe cystitis. Cultures were negative; tubercle bacilli were found after three examinations from right kidney. Tuberculin reaction was mild. She was in a very run-down condition. Pyelography was practiced and ureter appeared to be enlarged or thickened. She requested operation. Nephrectomy was done under spinal anesthesia and kidney was found to be markedly diseased. She stood the immediate shock well but died in two weeks, due partly, I believe, to infection from the ureteral stump. On post-mortem the left kidney seemed to be normal.

Dr. Kuhn, Oklahoma City: I am afraid we are going to infer from this paper that tubercular kidneys are generally surgical. I do not think that tubercular kidneys are surgical. I see quite a few cases and am confident that tubercular kidneys will heal just as well as a tubercular lung if given an opportunity to do so. I believe a tubercular kidney should be given an opportunity until shown otherwise. I think they should be considered in the light of a medical case and not a surgical case.

Dr. Overton: I did not mean to say that where we have proven that one kidney is badly diseased from tuberculosis and that the other seems to be in good condition then operation is indicated. Of course, various circumstances may affect the time of operation. This is my opinion, though of course it may not be correct.

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EDITORIAL

OUR NATIONAL MEDICAL UNPREPAREDNESS.

Amid all the clamor over the country for a larger navy and army, it is refreshing to note that there is also a persistent demand for a medical department in keeping with the needs of any probable contingency. In the general meeting of the Southern Medical Association the organization went on record as favorable to a systematic study of our future needs in that respect and the creation of a trained body of medical civilians to take charge of any situation which in the future might confront us. Joseph B'oodgood, in an address before the Railway Surgeons' Section, took the position that the problem of the railway surgeon in time of peace was practically the problem of the army surgeon in time of war, insofar as first aid was considered, that in time of peace the army surgeon had little or nothing to do to train him for future active service in that respect. Our experience in the Spanish-American War with typhoid was noted, as well as the fact that while that could never again occur, no one knew the new problems that might arise with each succeeding war; that whatever they might be, we should now prepare to cope with them and that the civilian practitioner owed that duty to his nation.

To these principles we subscribe. No one dreamed eighteen months ago that the principal concern of the European surgeons and those from America now assisting them would today be tetanus, gas bacillus gangrene, the strange symptoms produced by irritating gases. typhus—not a few score of cases, but mounting into staggering thousands, with every wound an infected one. From eye witnesses to the frightful carnage the news comes to us that this is vast'y different from anything ever before occurring, that human suffering incurred is beyond belief.

We hope we will not have to meet such conditions, but in all human probability we will sooner or later have identical conditions, possibly worse

than those now staged in Europe. Should we soon have to meet some of the greater nations, we may be severely punished before we can possibly prepare to adequately meet the problems confronting us. Heretofore death in war has not been due so much to actual wounds as to disease. The present war, however, is taking toll in every way, but it is reasonable to assume that when the facts are finally before us the ratio will not be so greatly different from past conflicts as one might think. With the exception of the Civil War, we have had no great national calamity. The Mexican and Spanish wars were too one-sided to hurt us much, but it is a fact well evidenced by reading histories of those conflicts that our army was lamentably short as to commissary supplies and medical service. Accurate reports show that death from wounds in the Spanish War were negligible compared with those due to disease. With these memories before us we certainly owe to the nation that so far has given us greater blessings than those enjoyed by any other a sensible preparation to protect its people should it unfortunately become necessary.

THE DALLAS MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

For the first time this great organization has met in the South's greatest state. The meeting was not a disappointment to those attending and gave an opportunity to many physicians to see and hear some of the pacemakers of the medical profession long admired in the South from sentimental reasons as well as for their high attainments. W. L. Rodman, President of the A. M. A., a Kentuckian by birth, who began his practice more than thirty years ago at Ft. Sill, in Indian Territory, as a young army surgeon, later assuming private practice in Texas, afterwards achieving just fame as a Philadelphia surgeon, was the guest of honor of the meeting. Isadore Dyer, Joseph Bloodgood, J. Shelton Horsley, Oscar Dowling, A. T. McCormack, Rupert Blue, Hugh Young and many others added luster to the meeting.

The entertainment features and clinics offered by the Dallas profession were exceptionally good. The only complaint of any sort registered was due to poor accoustics of some of the meeting p'aces.

Robert Wilson, Jr., Charleston, was elected president; Holman Taylor, Ft. Worth, Guy Hunner, Baltimore, vice-presidents; Seale Harris, Mobile, re-elected secretary. The Southern States Railway Association, auxiliary to the organization, elected Southgate Leigh, Norfolk, president; R. W. Knox, Houston, vice-president; Ambrose McKey, Jackson, Tenn., secretary.

PERSONAL AND GENERAL NEWS

Dr. P. M. Richardson has moved from Millerton to Coleman.

Dr. K. L. Colley, Pawhuska, visited in Virginia in November.

Dr. J. S. Hibbard, Cherokee, is in New York doing special work.

Dr. J. T. McLean, formerly of Bartlesville, has moved to El Reno, Texas.

Dr. and Mrs. Ralph Workman, Woodward, are visiting the Pacific Coast.

Dr. J. W. Gray, Quinton, has been doing special work in Chicago and St. Louis.

Dr. W. E. Dicken, Oklahoma City, attended the Boston meeting of Clinical Surgeons.

Dr. R. F. Terrell, Stigler, who has been dangerous ill for some time, is able to be out again.

Dr. S. H. Welch, Dacoma, has returned from New York, where he has been doing post-graduate work.

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Dr. Walter Capshaw, Norman, has returned from a prolonged Eastern trip.

Dr. C. M. Chambers, McCurtain, was recently operated on in Ft. Smith for appendicitis.

Dr. J. S. Hartford, Oklahoma City, attended the Boston meeting of the Congress of Clinical Surgeons.

Dr. P. F. Herod, formerly of Alva, has located in El Reno. He will specialize in eye, ear, nose and throat work.

Dr. C. M. Compton of Coyle was found dead in his bed Monday, November 8th. The cause of death is supposed to be heart failure.

Dr. W. W. Brown of Cameron died in that place November 2 from pneumonia, after an illness of three weeks. He leaves a widow and several children.

Dr. C. E. Hamner, formerly of Norman Public Health Laboratories, has returned from New Orleans and is associated with Dr. Walter E. Wright in the Tulsa Laboratory.

Muskogee County Society met November —— with the following program: "Interstitial Keratitis," M. K. Thompson and I. B. Oldham; paper, H. T. Ballantine, Muskogee.

Dr. H. H. Gipson, Oklahoma City, has brought suit against the Frisco Railway Company and David B. McCallum, an engineer, for personal injuries received August 8, when his automobile was struck by an engine.

Dr. R. L. Morrison, Poteau, died in that place November 15, after an illness of six months. Dr. Morrison is the son of a physician, has resided in Poteau for twelve years and ranked high in the profession or LeFlore County and Eastern Oklahoma. The sympathies of The Journal go to his family and friends.

Dr. J. H. Scott, County Health Officer of Pottawatomie County, warns the public that the mild epidemic of scarlet fever prevalent in that county is just as contagious as that of the virulent form; that it is the right of neighbors to have such cases quarantined and that a physician should be called at once.

Haskell County Medical Society held a regular meeting November 18 with the following announced program: Subject unannounced, Floyd E. Warterfield, Muskogee; "How I Collect," E. Johnson, Kinta; "The Duties of the County Superintendent of Health and the Doctors to Each Other," A. B. Callaway, Stigler; "Substitutes for Opium," R. R. Callaway, Stigler.

CORRESPONDENCE AND MISCELLANEOUS

Mangum, Okla., Oct. 28, 1915.

Dr. Claude Thompson, Muskogee, Okla.

Dear Doctor: In the October issue of the Journal you stated that Dr. Fowler Border was out with a red-hot communication castigating the county officials of Greer County, and especially the county attorney, for dismissing the charges against the officials of the Light Company.

Your readers would misunderstand the situation, as the facts are that I was only after the county attorney, never having had the least controversy with any other county or city official during my fifteen years residence here.

The county attorney has given my communication favorable consideration and has had John C. Keys, President of the Light Company, and Julian R. Bond (husband of the woman in the Senator Gore case) re-arrested and placed under bond for their appearance at the next term of court. Dr. Jessie F. Campbell, the third defendant, disappeared between two days and escaped arrest. Five co-defendants in the same conspiracy were convicted over a year ago.

The object of that conspiracy was to kill me politically and otherwise as Mayor of Mangum, in order to stop a bond election for the voting of a hundred thousand dollar municipal light plant. Tables were turned on them and the bond carried about three to one. I would like for you to correct this statement, because I do not like the impression to get out that I am after the whole bunch of county officials.

Your friend,

G. F. BORDER, Mayor.

ANONYMOUS.

The writer of the anonymous communication from El Reno may have an answer to his communication if he will send his name. Ordinarily anonymous communications are ignored, but the Journal stands for the principles he seemingly wishes to convey and there is no occasion for him not signing his communication.—Ed.

FROM THE OKLAHOMA STATE BOARD OF HEALTH, GUTHRIE.

Dr. John W. Duke, State Commissioner of Health.

Control of Diphtheria.

In every Oklahoma town where diphtheria appears, the safest course would be to close the public schools, followed by a rigid quarantine of all places where persons have been exposed to infection. Parents should know that "membranous croup" is a myth. If diptheria is suspected, the best available physician should be called, and antitoxin administered without delay, even though the symptoms be confusing. This should also be done in so-called spasmodic croup if the attack fails to subside in three or four hours. In developed cases of diphtheria, the serum dose for an adult is from 10,000 to 15,000 units. Any information concerning treatment of diphtheria, including preventive measures, will be promptly furnished reputable physicians by the State Board of Health at Guthrie.

New Germ-Killer Discovered.

The United States government, in its department of public health service, has discovered a new disinfectant that undoubtedly will soon be in use throughout the country, because of its superiority over all ordinary disinfectants. Germs cause disease, and the right kind of disinfectant properly applied will kill germs. This new disinfectant may be prepared in any home, and solely from materials produced in the United States. It can be manufactured for less than fifty cents a gallon. It is composed of pine oil, a by-product in the manufacture of turpentine, rosin, and sodium hydroxid, in the proportions of 5½ pounds of pine oil, 2.2 pounds of rosin, and 1.1 pounds of 25 per cent solution of sodium hydroxid. Its phenol coefficient is between 4 and 6, which means that it has more than four times the disinfectant properties of carbolic acid. It retains its strength for about two months. The finished product is a reddish-brown liquid, rather thick and oily in appearance, but free from turbidity. With water it makes a harmless emulsion, much resembling milk. It has a pleasing odor, no objectionable taste, and attacks neither fabrics or metals. It is altogether non-poisonous and may be safely used as a throat spray or mouth wash in solutions of ordinary strength. Only pine oil derived from what is known as the steam or solvent process should be used. Preferably it should be compounded by a qualified druggist. This discovery is another contribution of science to the preservation of human health. It is to be known as "hygienic laboratory pine-oil disinfectant."

Control of Scarlet Fever.

For the next several months, scarlet fever, supposed to be a germ disease, will do its level best to invade the homes and schools of Oklahoma. Its dangers, unhappily, are only too well known. The comnig together of children in poorly ventilated and overheated rooms affords excellent opportunity for the spread of this disease. The germ, to which has been given the name Bacillus Scarlatinae, is said to survive for twenty years, which vastly increases the menace of this tiger which annually destroys its victims by thousands. The infection is easily and quickly transmitted at any stage of the disease, but is probably most active just before the visible symptoms appear.

Secretions from the nose and mouth, and excretions from the bowels, kidneys and skin are carriers of the disease, and all objects exposed to such contamination should be burned or thoroughly disinfected. It is best to destroy all books and toys used by a patient. All useless furnishings should be removed from the room to be occupied by a scarlet fever patient. Upon the latter's recovery, the paper should be scraped from the walls, and the latter, together with the floors and woodwork, should be carefully scrubbed with a sublimate solution having a strength of 1 to 1,000. T hen expose the room, tightly closed, to formaldehyde gas for twelve hours. Then let in fresh air and sunlight for a week before the room is re-occupied.

The physician and the nurse should exercise the greatest precaution in the removal of their outer garments upon entering or leaving the sick room, in obedience to sanitary rules with which all competent physicians are acquainted. Preferably the nurse should take her meals in the sick room. All utensils used by the patient in eating should afterwards be soaked for an hour in a five percent solution of carbolic acid, and then boiled. All bedding and clothing should be sterilized in the same manner.

The appearance of scarlet fever in a household should be followed by a rigid quarantine of all persons who have been exposed, otherwise the disease may carry suffering and death throughout a neighborhood.

XUM

Upon recovery give the patient a thorough bath in a bichloride solution having a strength of 1 to 12,000 or 15,000. Wash the hair carefully with an antiseptic solution, and irrigate the mouth, nose and throat well in a similar solution. Then remove the patient to another room and dress in fresh clothing.

From four to six weeks is probably a safe duration of quarantine. But take no chances, and be on the safe side. If there is a discharge from the nose, mouth or ears, continue the period of quarantine under the direction of a competent physician. The germ is extremely tenacious of life, and these discharges are ideal carriers of the disease.

Quarantine all members of a school class in which scarlet fever has appeared. If the disease should become epidemic, close the school. It should not be forgotten, however, that this may turn loose scores of children who already have been exposed and infected. Let the situation be handled by the community's best physicians, to whom the public should be obedient in every particular.

ONE OF THE FIRST AMERICAN WOMEN to submit to Twilight Sleep at the Freiburg Clinic and who afterwards became noted for her strenuous advocacy of its adoption recently died in the Long Island College Hospital from hemorrhage following childbirth. The attending obstetrician was known as one of the strongest advocates in the country of Twilight Sleep. Considerable publicity was given to the woman's death in the lay press. The mutual faith of the patient and physician in the efficacy of this method of treatment aroused the suspicion that the expectant mother died a martyr to her faith, but nothing was published confirmatory to this belief.

We are in a position to relate the following facts:

The patient had advanced to the eighth month of pregnancy. A partial placenta previa resulted in several severe hemorrhages. It was decided to induce premature labor and she was removed to the hospital. The vertex presented and the child and placenta were delivered without difficulty. A most violent and uncontrollable hemorrhage followed and in spite of the skill of the attendant and his assistants the woman died upon the table.

The case opens up a field for speculation as to the effects of the drugs employed —scopolamine and morphine—upon the tonicity of the muscular structure of the uterus following delivery. It is a debatable question whether or not the partial narcotism could or would produce a relaxed condition of the musculature conducive to hemorrhage.—N. Y. State Journal of Medicine.

COMPENSATION ACTS INCREASE MALPRACTICE SUITS, is an observation of Dr. C. B. King, Chicago, who acted as chairman of the committee of medical defense survey for the Illinois State Medical Society.

"My supposition from studying the reports of 23 of the different state societies from whom the commtitee appointed to make investigation of medical defense shows that in the states that have a compensation act the suits for malpractice are increasing by bonds. In the states where no compensation act is in force we have fewer cases. For instance in Pennsylvania, with the great cities of Philadelphia, Pittsburgh, Harrisburg and Scranton, where there are thousands of employes, it costs the doctor 50 cents per capita to take care of medical defense. In the state of Washington, a very much smaller state, with a compensation act that has completely put lawyers out of the running, it costs the doctor $10.00 per year per capita to carry the defense, and the casualty companies have quit the state entirely or practically so. In the State of Wasnington the compensation act really means state insurance. They have in that state a commission: One appointed by the labor interests; one appointed by the employing interests and one by the governor of the state. These three men make up a state committee to settle every case. The employers of labor pay to the secretary of state a percentage depending upon their payroll. Whenever an accident happens or an employe is injured in any way the report is immediately made to the secretary of state, and this commission of three men settle the matter after the reports of the various physicians come in. No lawyer has a chance to get in but the poor doctor—God pity him in that state!"

The medico-legal committee of the same society reported at the last annual meeting:

"The committee notes the following facts: Malpractice suits are on a rapid increase and not only in Illinois but in all states."

These warnings from Illinois tend to justify the action of our house of delegates at the Cincinnati meeting in offering an amendment making it possible for our association to provide medical defense.—Ohio State Medical Journal.

FUMIGATION VS. CLEANLINESS.

The action of the Board of Health of the city of New York in discontinuing the practice of fumigating in infectious diseases will be watched by those who still believe in the antiseptic value of certain stifling gases with a great deal of interest. Convinced that fumigation was of no value but willing to have a comparative test made on a large scale, Dr. Goldwater, in December, 1914, discontinued fumigation in infected houses in Manhattan, the Bronx, Queens and Richmond, but continued it in the borough of Brooklyn. The substitute for formaldehyde, sulphurous acid, etc., was the always accessible cleaning, fresh air, sunlight, and particularly the renovation of premises by repainting and repapering. Prior to the discontinuance of the orthodox fumigation renovation by paint and paper was only enforced in cases of tuberculosis. The new method has apparently already justified itself. There has been no increase in the prevalence of the infectious diseases, more efficient disinfection has been performed and the annual saving to the city is estimated at $30,000. Th enew methods are forced upon the owner of the premises by a refusal of the department to remove the infectious disease placard until the necessary cleaning has been satisfactorily done. The most interesting part of the report deals with the comparative results in Manhattan and Brooklyn. It says:

"In the borough of Manhattan, 193 cases occurred among 3,451 primary cases of diphtheria. Of these, 171, or 4.9 per cent., would not have been affected by fumigation, and 22, or 0.6 per cent., might have been so affected.

"In Brooklyn, where fumigation was performed, there were 138 later cases among 2,907 original cases. Of these, 110, or 3.8 per cent., would not have been affected by fumigation, and 28, or 0.9 per cent., might have been so affected. In other words, there were half again as many later cases in Brooklyn, where fumigation was done, as in Manhattan, where it was not done.

"In the case of scarlet fever, the number of possibly preventable later cases was practically the same in the two boroughs, viz., 1.0 per cent. and .99 per cent., respectively. In Manhattan, 263 later cases occurred among 3,331 original cases. Of these, 229, or 6.8 per cent., would not have been affected by fumigation; 34, or 1.0 per cent., might have been so affected. In Brooklyn, 156 later cases occurred among 2,206 original cases. Of these, 134, or 6.0 per cent., would not have been affected by fumigation, and 22, or .99 per cent., might have been so affected.

"These figures show that the discontinuance of fumigation in diphtheria and scarlet fever in the boroughs of Manhattan, the Bronx and Richmond has not been followed by any harmful effects.

"In view of the time of testing, the Health Department officially holds to the opinion that the value of routine fumigation as a means of disinfection of premises where cases of infectious diseases have occurred is ineffective in that it does not destroy the disease germs."—Lancet-Clinic.

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